Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – Nov/Dec – 2017**

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| **Code :** | **14CS3032** | **Duration :** | **3hrs** |
| **Sub. Name :** | **OBJECT ORIENTED SOFTWARE ENGINEERING** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | What is the purpose of modeling in software engineering? | CO1 | 4 |
| b. | What is meant by “knowledge acquisition is not sequential”? Provide a concrete example of knowledge acquisition that illustrates this. | CO1 | 4 |
| c. | What is the difference between a task and an activity? | CO1 | 4 |
| d. | Describe the activities involved in managing a software engineering project. | CO1 | 8 |
| (OR) | | | | |
| 2. | a. | Explain extend, include, inheritance and communication relationships in use case modeling with suitable example. | CO1 | 8 |
| b. | Explain the following components of UML class diagram with suitable example.  i. Association ii. Aggregation iii. Multiplicity iv. Qualification v. Inheritance | CO1 | 12 |
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| 3. | a. | What is schedule in project organization? Explain any two diagrammatic notations used to represent the schedule. | CO1 | 5 |
|  | b. | Explain the planned and unplanned communication events that are available to participants for sharing the information on software project. | CO1 | 15 |
| (OR) | | | | |
| 4. | a. | Explain the activities of a developer when joining a project in an organization which is developing a new system with multiple teams. | CO1 | 5 |
|  | b. | Describe the Entity, boundary and control objects. Identify the entity, boundary and control objects from a withdrawal transaction use case of ATM system. | CO3 | 15 |
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| 5. | a. | Explain the various architectural styles followed in software system design. | CO2 | 8 |
|  | b. | Explain in detail about the following system design activities.  i. Identifying and storing persistent data. ii.Providing access control.Designing global control flow. | CO2 | 12 |
| (OR) | | | | |
| 6. | a. | Explain the following reuse concepts.   1. Specification inheritance and Implementation inheritance 2. Delegation. | CO2 | 8 |
|  | b. | What is design pattern? Explain the following design patterns with suitable UML class diagram.  i. Adapter Pattern ii. Bridge Pattern iii. Composite Pattern iv. Strategy Pattern | CO3 | 12 |
| 7. | a. | Explain the following mapping activities:.  i. Optimizing the object design model  ii. Mapping object models to a persistent storage schema. | CO2 | 10 |
|  | b. | Mapping object models to a persistent storage schema. | CO2 | 10 |
| (OR) | | | | |
| 8. | a. | Explain the following configuration management concepts.  Configuration items and CM aggregates. | CO2 | 5 |
|  | b. | Versions and configurations. | CO2 | 5 |
|  | c. | Promotions and release. | CO2 | 5 |
|  | d. | Repositories and workspace. | CO2 | 5 |
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|  | | **Compulsory**: |  |  |
| 9. | a. | Explain the following project management concepts in detail.  i. Skill matrix ii. Software project management plan | CO2 | 10 |
|  | b. | Explain the Boehm’s spiral model and the unified software development process model. | CO2 | 10 |

ALL THE BEST